

Risk factors and prediction model for endometrial polyps in patients with endometriosis: A Retrospective Study

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Abstract

Objective Analyze the differences in the laboratory indexes and baseline clinical characteristics between the endometriosis(EMs) patients with or without combination of endometrial polyps(EPs), and establish an efficient combined prediction model to predict endometrial polyps in endometrial patients. **Design** Retrospective study **Setting** Women's Hospital, Zhejiang University School of Medicine, China, from August 1, 2020, to July 31, 2021 **Population** 1250 endometriosis patients **Methods** Logistic regression analysis was used to establish a combined diagnostic model. **RESULTS** Compared with endometriosis patients without EPs, endometriosis patients combined with EPs had significantly higher age, gravidity, parity, body mass index (BMI), systolic blood pressure(SBP), diastolic blood pressure(DBP), luteinizing hormone (LH), estradiol (E2), platelet(PLT), total cholesterol (TC), low-density lipoprotein cholesterol (LDL-C), fasting plasma glucose (FPG), and had significantly lower hemoglobin (HGB) and white blood cells(WBCs) ($P<0.05$). The combined prediction model for endometrial polyps in patients with endometriosis including BMI, DBP, gravidity, parity, LH, WBCs, HGB, TC, FPG has been established. The ROC curve showed that the combined diagnostic model reached area under the curve of 0.78(0.75-0.82, $p<0.001$). **CONCLUSION** Compared with endometriosis patients without EPs, endometriosis patients combined with EPs had some metabolic changes. The combined diagnostic model of BMI, DBP, gravidity, parity, LH, WBCs, HGB, TC, FPG may provide a new approach for the early diagnosis and precise treatment of endometrial polyps in endometriosis patients.

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